Claims

What is claimed is:

1. A fine structure manufacturing method comprising the steps of:

providing a first film on a treated surface of a member in which a pattern having a desired form is to be formed;

providing a liquid-repellent film on an upper surface of the first film, the liquid-repellent film having liquid repellency to a liquid material to be applied to the pattern; and

eliminating part of the liquid-repellent film which corresponds to an area where the pattern is to be formed.

2. The fine structure manufacturing method according to Claim 1, wherein the first film is a lyophilic film having a lyophilic property relative to the liquid material.

3. The fine structure manufacturing method according to Claim 1, wherein the first film comprises a sacrificial layer which suppresses damage to the treated surface when eliminating the liquid-repellent film.

4. The fine structure manufacturing method according to Claim 1, wherein the first film comprises a sacrificial layer which suppresses at least one of degradation of the pattern and adhesion degradation between the pattern and the treated surface.

5. The fine structure manufacturing method according to Claim 1,

wherein the liquid-repellent film comprises an activated film activated or volatilized by being irradiated with an electromagnetic wave.

6. The fine structure manufacturing method according to Claim 1, further comprising a step of eliminating a portion of the first film corresponding to the area where the pattern is to be formed, after eliminating the liquid-repellent film.

7. The fine structure manufacturing method according to Claim 6, wherein elimination of the first film is performed by irradiation with an electromagnetic wave.

8. A fine structure manufacturing method comprising the steps of:

providing a first film on a treated surface on which a pattern having a desired form is to be formed;

providing a liquid-repellent film on an upper surface of the first film, the liquid-repellent film having liquid repellency to a liquid material which forms the pattern; and

eliminating the liquid-repellent film at a boundary of an area where the pattern is to be formed.

9. The fine structure manufacturing method according to Claim 8, further comprising a step of eliminating the first film at the boundary of the area where the pattern is to be formed.

10. The fine structure manufacturing method according to Claim 8,

wherein the first film comprises a decomposition acceleration layer accelerating a decomposition of the liquid-repellent film.

11. A fine structure manufacturing method comprising the steps of:

providing a lyophilic film on a treated surface of a member in which a pattern having a desired form is to be formed, the lyophilic film having a lyophilic property relative to a liquid material employed for forming the pattern;

providing a decomposition acceleration layer on an upper surface of the lyophilic film, the decomposition acceleration layer accelerating a decomposition of a liquid-repellent film, the liquid-repellent film having liquid repellency relative to the liquid material;

providing the liquid-repellent film on an upper surface of the decomposition acceleration layer; and

eliminating part of the liquid-repellent film which is located on an area where the pattern is to be formed.

12. The fine structure manufacturing method according to Claim 11, wherein elimination of the liquid-repellent film further comprises irradiating the area where the pattern is to be formed in the liquid-repellent film with an electromagnetic wave.

13. The fine structure manufacturing method according to Claim 12, further comprising:

filling in the area where the liquid-repellent film is eliminated with the liquid material; and at least one of drying and baking the liquid material to form the pattern on the area where the liquid material is filled.

14. A device characterized by being manufactured by using the fine structure manufacturing method according to Claim 12.

15. An electronic instrument characterized by comprising the device according to Claim 14.

16. The fine structure manufacturing method according to Claim 1, wherein the first film comprises a decomposition acceleration layer accelerating a decomposition of the liquid-repellent film.

17. The fine structure manufacturing method according to Claim 1, further comprising:

filling the liquid material in an area where the liquid-repellent film is eliminated; and

at least one of drying and baking the liquid material to form the pattern on the area where the liquid material is filled.

18. A device characterized by being manufactured by using the fine structure manufacturing method according to Claim 1.